

AMENDMENTS TO THE DRAWINGS:

An attached replacement drawing sheet(s) and an annotated sheet(s) showing changes to the drawings are attached to this Response as an Appendix. These replacement sheets comprise amendments to Figures 1-3. These amendments correct the informalities noted in the objections to the drawings. Accordingly, Applicant respectfully requests that all objections to the drawings be withdrawn.

REMARKS/ARGUMENTS

This paper is being provided in response to the March 9, 2005 Office Action for the above-referenced application. In this response, Applicant has added new Claims 31-33, canceled Claims 3, 4, 15, 18, 19 and 30, amended Claims 1, 6, 12, 16, 21 and 27 in order to clarify that which Applicant deems to be the claimed invention. Applicant respectfully submits that the newly added claims and the amendments to the claims are all supported by the originally filed application.

In response to the objection to Figure 1-3, Applicant submits herewith drawing corrections adding labels as indicated in the Office Action. Accordingly, Applicant respectfully requests that the object be reconsidered and withdrawn.

Applicant gratefully acknowledges the indication of allowability of the subject matter of Claims 6-11 and 21-26 if rewritten in independent form. Applicant has rewritten Claims 6-11 and 21-26 in accordance with the remarks set forth in the Office Action and respectfully submits that Claims 6-11 and 21-26 are now in condition for allowance.

The rejection of Claims 3, 12-14, 18 and 27-29 under 35 U.S.C. § 112, ¶1 as applied to Claims 3 and 18, is moot in view of the cancellation of Claims 3 and 18 herein. In connection with this rejection as applied to Claims 12-14 and 27-29, Applicant has amended Claims 12 and 27 to remove use of the term “the same”. Claims 12 and 27, as amended herein, recite ...
wherein at least one of said first and said second data storage entities includes a shared memory, said shared memory being used for communicating data associated with the multi-execute command between two processors in said at least one of said data storage entities.

Applicant respectfully submits that this feature as recited in Claims 12 and 27 is described in the specification, for example, with reference to Figure 8 and accompanying text beginning at page 27, line 5. Figure 8 illustrates an embodiment of a components that may be included a data storage entity. Figure 8 includes a host adapter, a global or shared memory, and a remote adapter. Each of the remote adapter and the host adapter may include a processor board. The global or shared memory may be used to facilitate communications between and within elements of the data storage entity.

In view of the foregoing, Applicant respectfully requests that the rejection be reconsidered and withdrawn.

The rejection of Claims 3-4, 15, 18-19 and 30 under 35 U.S.C. § 112, ¶2 is moot in view of the cancellation of these claims herein. Accordingly, Applicant respectfully requests that this rejection be reconsidered and withdrawn.

The rejection of Claims 1-3, 5, 12-18, 20 and 27-30 under 35 U.S.C. § 102(b) as being anticipated by Beal et al. (U.S. Patent No. 5,155,845, hereinafter referred to as “Beal”) is hereby traversed and reconsideration thereof is respectfully requested. This rejection as applied to Claims 3, 15, 18 and 30 is moot in view of the cancellation of these claims herein. Further, Applicant respectfully submits that Claims 1-2, 5, 12-14, 16, 17, 20 and 27-29, as amended herein, are patentable over the cited reference.

Applicant's Claim 1, as amended herein, recites a method for performing an operation on a plurality of processors comprising: receiving, at a first processor in a first data storage entity, a

multi-execute command from a host system, said multi-execute command being a single system call indicating which processors perform at least one operation; determining, in accordance with a data structure, whether the first processor is to perform a first operation associated with said multi-execute command, said data structure including an indicator for each of said plurality of processor indicating whether said each processor is to perform said first operation; forwarding said multi-execute command to a second processor in a second data storage entity; and determining, in accordance with said data structure, whether the second processor is to perform said first operation associated with said multi-execute command. Claims 2, 5 and 12-14 depend from Claim 1.

Applicant's Claim 16, as amended herein, recites a computer program product for performing an operation on a plurality of processors in a computer system comprising: machine executable code for receiving, at a first processor in a first data storage entity, a multi-execute command from a host system; said multi-execute command being a single system call indicating which processors perform at least one operation; machine executable code for determining, in accordance with a data structure, whether the first processor is to perform a first operation associated with said multi-execute command, said data structure including an indicator for each of said plurality of processors indicating whether said each processor is to perform said first operation; machine executable code for forwarding said multi-execute command to a second processor in a second data storage entity; and machine executable code for determining, in accordance with said data structure, whether the second processor is to perform said first operation associated with said multi-execute command. Claims 17, 20, and 27-29 depend from Claim 16.

Beal discloses an extended duplicate copy service. A request is received from a host by DSC (data storage control unit) 105. The DSC 105 processes the request causing the record to be written on one of the disk drives 109. The DSC 105 transmits the received write request over data link 106 to DSC 107 which causes an extended duplicate copy of the record to be written to the appropriate one of the disk drives 111. In this manner, a copy of each written record on one of the disk drives 109 is also written on one of the disk drives 111. (Figure 1; Col. 5, Line 56-Col. 6, Line 11). Beal discloses a Figure 18 of a message that is transmitted over the data link 106 for provision of the extended dual copy service. Field 2 is a GROUP TYPE identifying the service to be provided for the group. (Col. 25, Line 59-Col. 26, Line 3; Figure 18).

Applicant's Claim 1, as amended herein, is neither disclosed nor suggested by the reference in that the reference neither discloses nor suggests at least the features of *a method for performing an operation on a plurality of processors comprising: ...determining, in accordance with a data structure, whether the first processor is to perform a first operation associated with said multi-execute command, said data structure including an indicator for each of said plurality of processor indicating whether said each processor is to perform said first operation; ...determining, in accordance with said data structure, whether the second processor is to perform said first operation associated with said multi-execute command*, as set forth in Claim 1. Beal discloses an extended duplicate copy service resulting in data being written to two disk drives using two data storage control units. Beal discloses using a message including a field identifying a type of service. The field may identify the extended duplicate copy service. Beal neither discloses nor suggests a data structure including an indicator for each of a plurality of processors indicating whether the processor is to perform an operation. Rather, Beal discloses indicating a type of service. Accordingly, Beal neither discloses nor suggest at

least the features pointed out above as set forth in Claim 1.

For reasons similar to those set forth regarding Claim 1, Applicant's Claim 16 is also neither disclosed nor suggested by the reference for reasons similar to those set forth regarding Claim 1 in that the reference neither discloses nor suggests ***a computer program product for performing an operation on a plurality of processors in a computer system comprising: ... machine executable code for determining, in accordance with a data structure, whether the first processor is to perform a first operation associated with said multi-execute command, said data structure including an indicator for each of said plurality of processors indicating whether said each processor is to perform said first operation; and machine executable code for determining, in accordance with said data structure, whether the second processor is to perform said first operation associated with said multi-execute command,*** as set forth in Claim 16.

In view of the foregoing, Applicant respectfully requests that the rejection be reconsidered and withdrawn.

The rejection of Claims 4 and 19 under 35 U.S.C. § 103(a) as being obvious over Beal is moot in view of the cancellation of Claims 4 and 19 herein. Accordingly, Applicant respectfully requests that the rejection be reconsidered and withdrawn.

Applicant respectfully submits that newly added Claims 31-33 are also patentable over the cited art.

Based on the above, Applicant respectfully requests that the Examiner reconsider and withdraw all outstanding rejections and objections. Favorable consideration and allowance are earnestly solicited. Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at 617-248-4042.

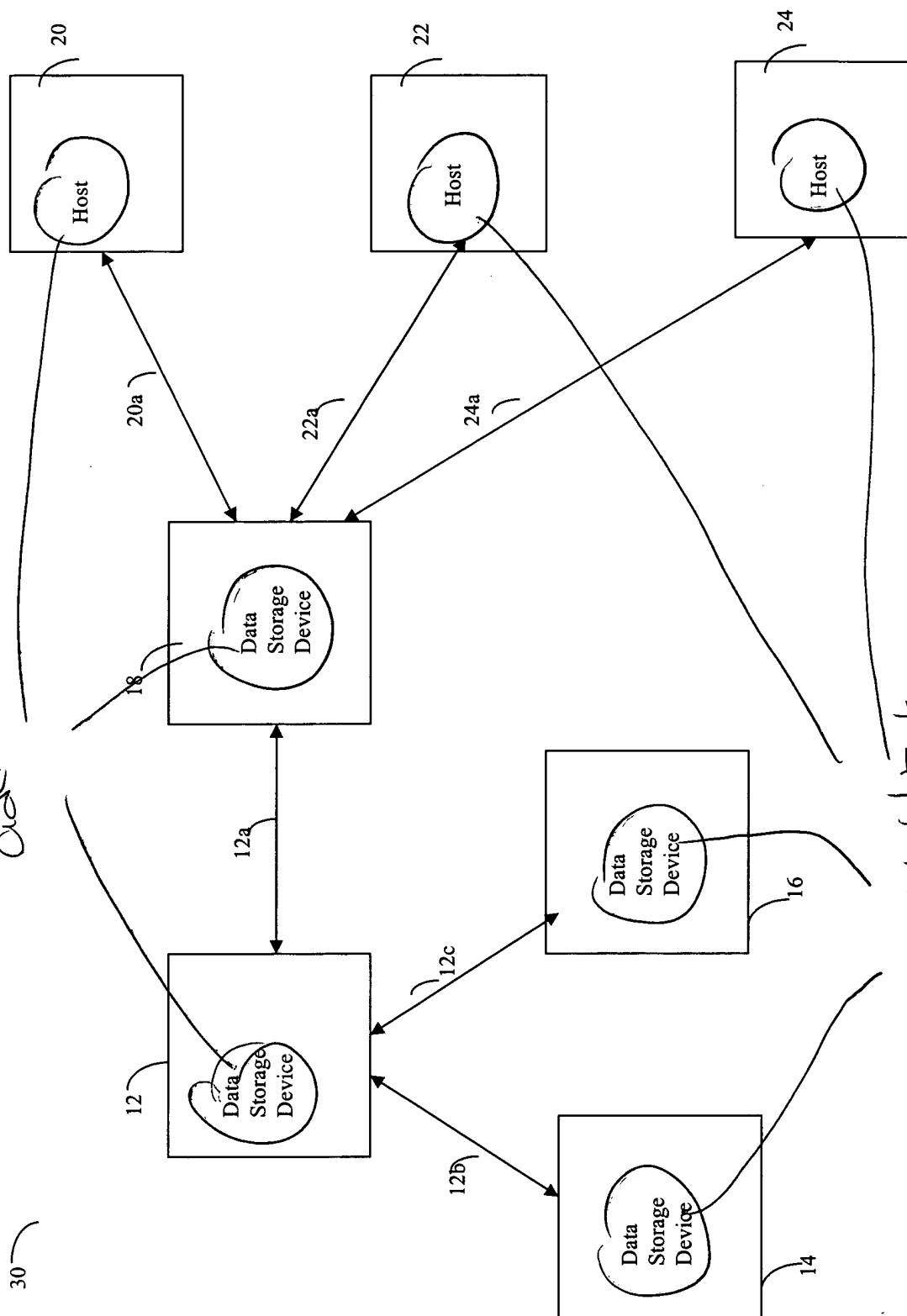
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FIGURE 1

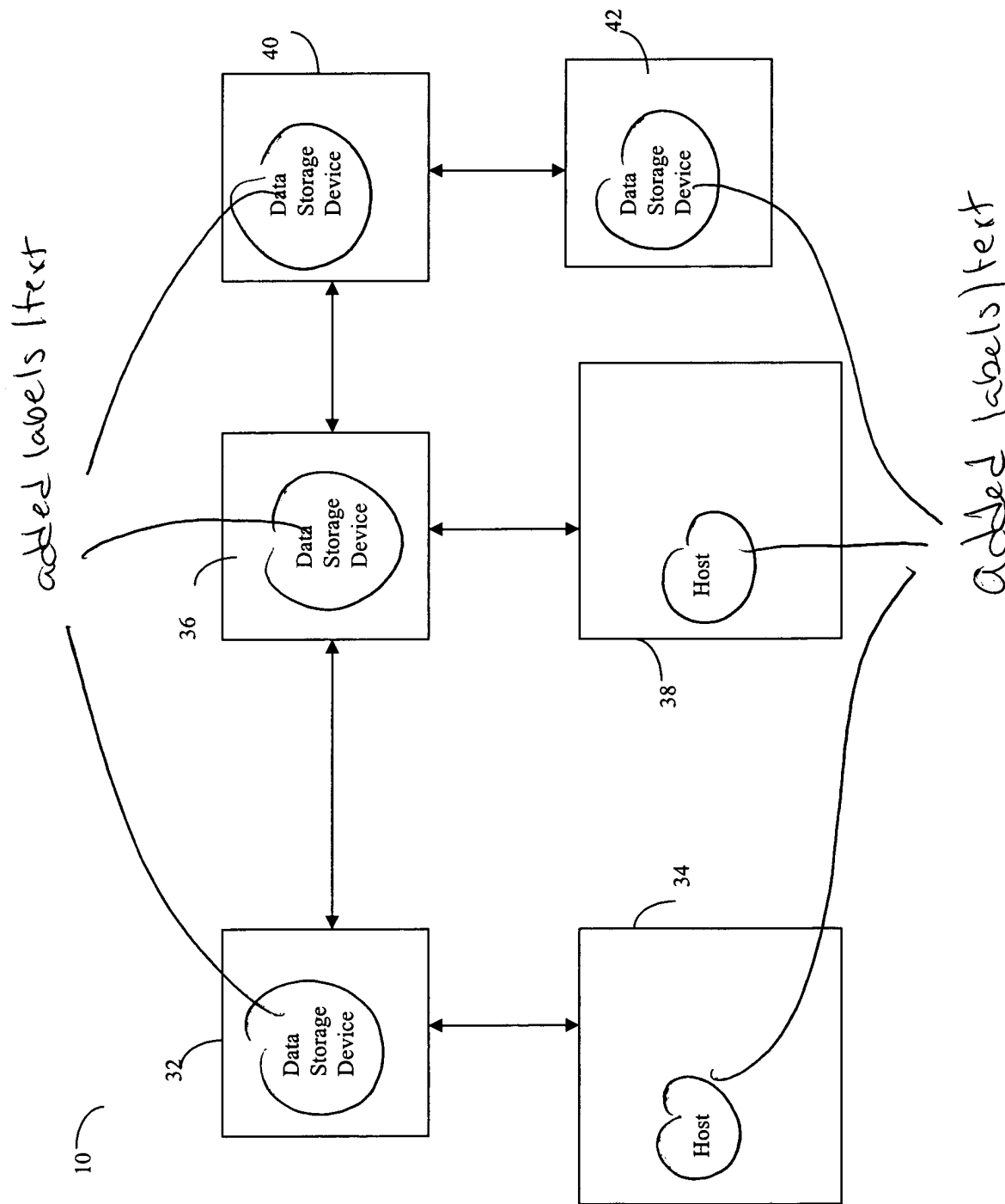


FIGURE 2

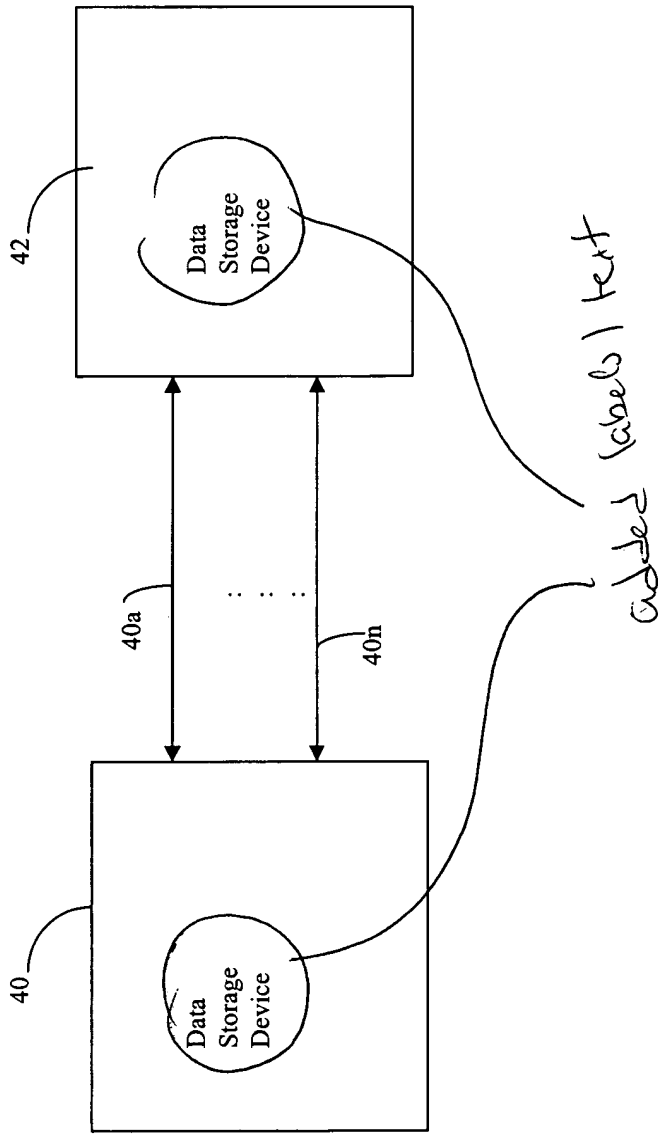


FIGURE 3